From: Pagano (US), Peter A [peter.a.pagano@boeing.com]

Sent: 7/30/2018 11:13:44 AM

To: Rakosnik, Delaney [rakosnik.delaney@epa.gov]

CC: Lewis, Josh [Lewis.Josh@epa.gov]; Hengst, Benjamin [Hengst.Benjamin@epa.gov]; Atkinson, Emily

[Atkinson.Emily@epa.gov]

Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Delaney

Thanks for the message. This is to confirm that the meeting time on Sept 20 will work on our end. We will be in touch to provide participant names closer to the meeting date. Please let me know what additional information you may need.

All the best Pete Pagano

From: Rakosnik, Delaney <rakosnik.delaney@epa.gov>

Sent: Friday, July 27, 2018 12:31:07 PM

To: Pagano (US), Peter A

Cc: Lewis, Josh; Hengst, Benjamin; Atkinson, Emily

Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Peter,

Bill Wehrum can accommodate a 45 min meeting on Sept 20th at 10am. How does that time work for your schedules?

Many thanks,

Delaney Rakosnik Staff Assistant Immediate Office of the Assistant Administrator Office of Air and Radiation, USEPA Room 5406A, 1200 Pennsylvania Avenue NW Washington, DC 20460

Voice: 202-564-0935

Email: rakosnik.delaney@epa.gov

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]

Sent: Monday, July 23, 2018 3:17 PM

To: Rakosnik, Delaney <rakosnik.delaney@epa.gov>

Cc: Lewis, Josh <Lewis.Josh@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov> **Subject:** Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Delaney

The purpose of this message is to request a meeting with Assistant Administrator Wehrum to discuss aircraft emissions issues that are within the jurisdiction of the International Civil Aviation Organization's (ICAO) Environment Committee. OTAQ staff are actively engaged in policy formulation at ICAO as well as in developing domestic implementing regulations. Meeting participants would include representatives from Boeing; General Electric; and the Aerospace Industries Association. Attached below is a draft agenda which

includes specific discussion topics. We are requesting Sept 19 or 20 as potential meeting dates because out of town participants for both companies will already be in DC for an industry meeting earlier in the week. We will work with you to find a convenient time that works for Mr Wehrum on either of those days. You should know that I have already provided background regarding this request to OTAQ (Ben Hengst). Thank you in advance for your assistance and please let me know if any additional information would be helpful to you.

Draft Agenda

- 1. ICAO Background and Regulatory Policy Development Process
- 2. Industry Engagement with ICAO and its Environment Committee (CAEP)
- 3. nvPM
- 4. NOx
- 5. CO2

Sincerely,

Peter A. Pagano Director, Environment The Boeing Company 703-414-6486

Email: peter.a.pagano@boeing.com

Appointment

Charmley, William [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP From:

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=FB1828FB00AF42FFB68B9E0A71626D95-CHARMLEY, WILLIAM]

Sent: 7/26/2018 9:31:59 PM

Charmley, William [charmley.william@epa.gov]; Pagano (US), Peter A [peter.a.pagano@boeing.com] To:

Subject: Call with Pete Pagano, Boeing Location: Pete will call Bill at 734-214-4862

Start: 8/16/2018 6:00:00 PM End: 8/16/2018 7:00:00 PM

Show Time As: Busy

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]

Sent: Friday, July 27, 2018 8:52 AM

To: Charmley, William <charmley.william@epa.gov>

Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Let's plan on that. August 16 at 2pm. Do you want to call me at the number below or do you have a number you would like me to use? Thanks and have a good weekend.

Peter A. Pagano Director, Environment The Boeing Company

703-414-6486

Email: peter.a.pagano@boeing.com

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]

Sent: Thursday, July 26, 2018 3:49 PM

To: Charmley, William < charmley, william@epa.gov>

Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Bill

Thanks for the message. Glad to set up a call. The afternoon of the 8th works or the morning of the 9th. May 15 and 16 are fairly open for me too. Please let me know what's convenient for you.

All the best,

Peter A. Pagano Director, Environment The Boeing Company

703-414-6486

Email: peter.a.pagano@boeing.com

From: Charmley, William [mailto:charmley.william@epa.gov]

Sent: Wednesday, July 25, 2018 6:24 AM

To: Pagano (US), Peter A <peter.a.pagano@boeing.com>

Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Dear Pete

Thanks for this outreach. I did catch up with Ben on this topic, but I would like to discuss with you sometime in the next few weeks. One of the questions I have is more background on the Aerospace Industries Association.

What is this Association, who are typical members, and to what extent are the associations views similar or different to Boeings?

I am in the office on and off this week and next week, but then back full time for the week of August 6, and most of the rest of August.

Do you have some open times the week of August 6 or the week of August 13 where we could schedule a 30 minute call?

Best regards,

Bill

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]

Sent: Monday, July 23, 2018 3:19 PM

To: Charmley, William < charmley.william@epa.gov>

Subject: FW: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Bill

FYI Hope your summer is going well. Just wanted to make sure you were aware of this meeting request...I spoke to Ben Hengst and I believe he mentioned to you but I would be happy to discuss and provide additional information.

All the best,

Peter A. Pagano Director, Environment The Boeing Company 703-414-6486

Email: peter.a.pagano@boeing.com

From: Pagano (US), Peter A

Sent: Monday, July 23, 2018 3:17 PM

To: 'Rakosnik.Delaney@epa.gov' <Rakosnik.Delaney@epa.gov>

Cc: 'Lewis, Josh' < Lewis, Josh@epa.gov>; 'Hengst, Benjamin' < Hengst, Benjamin@epa.gov> Subject: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Delaney

The purpose of this message is to request a meeting with Assistant Administrator Wehrum to discuss aircraft emissions issues that are within the jurisdiction of the International Civil Aviation Organization's (ICAO) Environment Committee. OTAQ staff are actively engaged in policy formulation at ICAO as well as in developing domestic implementing regulations. Meeting participants would include representatives from Boeing; General Electric; and the Aerospace Industries Association. Attached below is a draft agenda which includes specific discussion topics. We are requesting Sept 19 or 20 as potential meeting dates because out of town participants for both companies will already be in DC for an industry meeting earlier in the week. We will work with you to find a convenient time that works for Mr Wehrum on either of those days. You should

know that I have already provided background regarding this request to OTAQ (Ben Hengst). Thank you in advance for your assistance and please let me know if any additional information would be helpful to you.

Draft Agenda

- 1. ICAO Background and Regulatory Policy Development Process
- 2. Industry Engagement with ICAO and its Environment Committee (CAEP)
- 3. nvPM
- 4. NOx
- 5. CO2

Sincerely,

Peter A. Pagano Director, Environment The Boeing Company 703-414-6486

Email: peter.a.pagano@boeing.com

From: Charmley, William [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=FB1828FB00AF42FFB68B9E0A71626D95-CHARMLEY, WILLIAM]

Sent: 8/30/2018 12:40:12 PM

To: OTAQ Materials [OTAQMaterials@epa.gov]

CC: Michael Samulski (samulski.michael@epa.gov) [samulski.michael@epa.gov]; Manning, Bryan

[manning.bryan@epa.gov]

Subject: draft email for Chris to send AA Wehrum regarding FAA senior career staff participating in the aircraft industry

meeting on September 20

Chris -

I communicated with Pete Pagano at Boeing regarding FAA's request to have one or two participants from FAA (Kevin Welsh and/or Ralph Iovinelli) participate in the September 20 meeting with AA Wehrum & OTAQ. Pete and the industry are fine with that, and I think it will be helpful for FAA and EPA to hear the industries messages at the same time.

Below is an email you can consider sending to AA Wehrum so he is aware.

Thanks

Bill

<< draft>>

Subject: FAA staff participation in the September 20 aircraft industry meeting

Dear Bill,

Ex. 5 Deliberative Process (DP)

Thanks

Chris.

Appointment

From: Charmley, William [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=FB1828FB00AF42FFB68B9E0A71626D95-CHARMLEY, WILLIAM]

Sent: 8/9/2018 3:41:08 PM

To: Pagano (US), Peter A [peter.a.pagano@boeing.com]

Subject: Call with Pete Pagano, Boeing Location: Pete will call Bill at 734-214-4862

Start: 8/16/2018 6:00:00 PM **End**: 8/16/2018 7:00:00 PM

Show Time As: Tentative

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]

Sent: Friday, July 27, 2018 8:52 AM

To: Charmley, William < charmley.william@epa.gov>

Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Let's plan on that. August 16 at 2pm. Do you want to call me at the number below or do you have a number you would like me to use? Thanks and have a good weekend.

Peter A. Pagano Director, Environment The Boeing Company

703-414-6486

Email: peter.a.pagano@boeing.com

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]

Sent: Thursday, July 26, 2018 3:49 PM

To: Charmley, William < charmley, william@epa.gov>

Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Bill

Thanks for the message. Glad to set up a call. The afternoon of the 8th works or the morning of the 9th. May 15 and 16 are fairly open for me too. Please let me know what's convenient for you.

All the best,

Peter A. Pagano Director, Environment The Boeing Company 703-414-6486

Email: peter.a.pagano@boeing.com

From: Charmley, William [mailto:charmley.william@epa.gov]

Sent: Wednesday, July 25, 2018 6:24 AM

To: Pagano (US), Peter A <peter.a.pagano@boeing.com>

Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Dear Pete

Thanks for this outreach. I did catch up with Ben on this topic, but I would like to discuss with you sometime in the next few weeks. One of the questions I have is more background on the Aerospace Industries Association.

What is this Association, who are typical members, and to what extent are the associations views similar or different to Boeings?

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Best regards,

Bil

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]

Sent: Monday, July 23, 2018 3:19 PM

To: Charmley, William < charmley.william@epa.gov>

Subject: FW: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Bill

FYI Hope your summer is going well. Just wanted to make sure you were aware of this meeting request...I spoke to Ben Hengst and I believe he mentioned to you but I would be happy to discuss and provide additional information.

All the best,

Peter A. Pagano Director, Environment The Boeing Company 703-414-6486

Email: peter.a.pagano@boeing.com

From: Pagano (US), Peter A

Sent: Monday, July 23, 2018 3:17 PM

To: 'Rakosnik.Delaney@epa.gov' < Rakosnik.Delaney@epa.gov>

Cc: 'Lewis, Josh' < Lewis, Josh@epa.gov>; 'Hengst, Benjamin' < Hengst, Benjamin@epa.gov> Subject: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Delaney

The purpose of this message is to request a meeting with Assistant Administrator Wehrum to discuss aircraft emissions issues that are within the jurisdiction of the International Civil Aviation Organization's (ICAO) Environment Committee. OTAQ staff are actively engaged in policy formulation at ICAO as well as in developing domestic implementing regulations. Meeting participants would include representatives from Boeing; General Electric; and the Aerospace Industries Association. Attached below is a draft agenda which includes specific discussion topics. We are requesting Sept 19 or 20 as potential meeting dates because out of town participants for both companies will already be in DC for an industry meeting earlier in the week. We will work with you to find a convenient time that works for Mr Wehrum on either of those days. You should

know that I have already provided background regarding this request to OTAQ (Ben Hengst). Thank you in advance for your assistance and please let me know if any additional information would be helpful to you.

Draft Agenda

- 1. ICAO Background and Regulatory Policy Development Process
- 2. Industry Engagement with ICAO and its Environment Committee (CAEP)
- 3. nvPM
- 4. NOx
- 5. CO2

Sincerely,

Peter A. Pagano Director, Environment The Boeing Company 703-414-6486

Email: peter.a.pagano@boeing.com

OAR Briefing Materials for Acting Administrator Wheeler October 25, 2018 – American Forest & Paper Association

American Forest & Paper Association (AF&PA)

Attendees: Donna Harman, CEO; Paul Noe, Vice President; Russ Frye, Outside Counsel

Background: AF&PA is the national trade association of the forest products industry whose member companies make more than 75 percent of U.S. pulp, paper, paper-based packaging and wood building materials. Member companies range from independent forest owners and family-owned mills to large multi-product, publicly-owned companies that manufacture pulp, paper, paperboard and wood products.

Topics of Discussion: AF&PA has requested this meeting to discuss the treatment of biogenic CO2 under the Clean Air Act and request an update as to where the Agency is in implementing the congressional language directing EPA, USDA, and DOE, to establish policies that reflect the carbon neutrality of forest-derived bioenergy.

Ex. 5 Deliberative Process (DP)

On <u>April 23, 2018</u>, EPA Administrator Scott Pruitt issued a statement of policy making clear that in future regulatory actions biomass from managed forests will be treated as carbon neutral when used for energy production at stationary sources. In the <u>Spring and Fall 2018 Regulatory Agenda</u>, the Agency indicated we will be proposing action to establish regulatory previsions for the exemption of certain biogenic CO2 emission from stationary sources.

Ex. 5 Deliberative Process (DP)

Deliberative Material - Do Note Cite or Quote

OAR Briefing Materials for Acting Administrator Wheeler October 25, 2018 – Middle Georgia Clean Air Coalition

Middle Georgia Clean Air Coalition (MGCAC)

Attendees: Ray Clark, Consultant for MGCAC, former member of White House Council on Environmental Quality (President Clinton); Mayor Robert Reichert, Macon – Bibb County; Commissioner Daylon Mart, Jones County; Greg Boike, MGCAC.

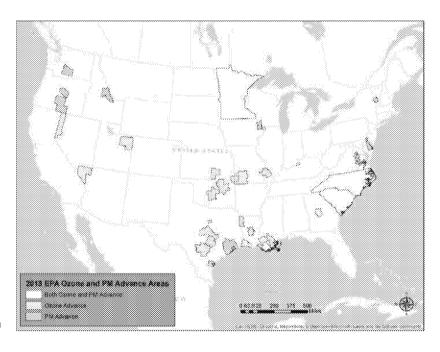
MGCAC Background: The MGCAC has been working for nearly the past 15 years to ensure the people living in the central Georgia region are breathing clean air. The 13 cities and seven counties that make up the MGCAC have accomplished demonstrable and measurable achievements that have made a positive impact on our air quality.

Since adoption in 2015, MGCAC has been a participant in EPA's Ozone and PM2.5 Advance Program (more information below). An active partner with Region 4, MGCAC has attended all four of the annual Region 4 Advance Forums (2015-2018), including the most recent Forum on September 11-13, 2018.

MGCAC Counties: Bibb, Crawford, Houston, Jones, Monroe, Peach, Twiggs

No MGCAC county is currently in nonattainment for any NAAQS. Previously, Bibb and Monroe were in nonattainment for the 1997 ozone and 1997 PM-2.5 (both standards have been revoked).

Background on EPA's Advance Program: The Advance Program is a collaborative effort led by EPA to encourage emission reductions in attainment areas and to help states, tribes and local governments continue to meet the National Ambient Air Quality Standards (NAAQS) for ozone and fine particulate matter (PM2.5). The Advance Program is flexible in the sense that participants determine their own goals and the measures they want to implement in order to reach them - EPA does not "approve" or "disapprove" participant commitments. Although there are no guarantees that participation will prevent a nonattainment designation from ever occurring, the actions taken as part of the Advance Program could better position an area to handle nonattainment requirements if they ever apply.



Ex. 5 Deliberative Process (DP)

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OAR Briefing Materials for Acting Administrator Wheeler October 25, 2018 – Middle Georgia Clean Air Coalition

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Attendees: Ray Clark, Consultant for MGCAC, former member of White House Council on Environmental Quality (President Clinton); Mayor Robert Reichert, Macon – Bibb County; Commissioner Daylon Mart, Jones County; Greg Boike, MGCAC.

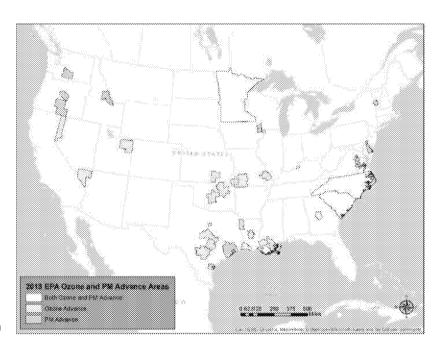
MGCAC Background: For the past 15 years, MGCAC has been working to ensure people living in the central Georgia region are breathing clean air. The 13 cities and seven counties that make up the MGCAC have accomplished demonstrable and measurable achievements that have made a positive impact on the area's air quality.

Since adoption in 2015, MGCAC has been a participant in EPA's Ozone and PM2.5 Advance Program (more information below). An active partner with Region 4, MGCAC has attended all four of the annual Region 4 Advance Forums (2015-2018), including the most recent Forum on September 11-13, 2018.

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Ex. 5 Deliberative Process (DP)

Deliberative Material - Do Note Cite or Quote

From: Burch, Julia [Burch.Julia@epa.gov]

Sent: 7/30/2018 7:40:19 PM

To: Hengst, Benjamin [Hengst.Benjamin@epa.gov]; Atkinson, Emily [Atkinson.Emily@epa.gov]; Sutton, Tia

[sutton.tia@epa.gov]

CC: Rakosnik, Delaney [rakosnik.delaney@epa.gov]

Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Please invite the following:

- Chris Grundler
- Bill Charmley
- Mike Samulski
- Bryan Manning
- Cullen Leggett
- John Mueller
- Mike Thrift
- David Orlin
- Julia Burch
- Bob Giannelli
- Bruce Maeroff
- Jeffrey A Stevens
- David Yen

Thanks!

Regards,

Julia Burch
Office of Transportation and Air Quality
U.S. Environmental Protection Agency
202-564-0961

From: Hengst, Benjamin

Sent: Monday, July 30, 2018 2:33 PM

To: Atkinson, Emily <Atkinson.Emily@epa.gov>; Sutton, Tia <sutton.tia@epa.gov>
Cc: Rakosnik, Delaney <rakosnik.delaney@epa.gov>; Burch, Julia <Burch.Julia@epa.gov>
Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Looping in Julia on this on this one for a response (Julia covers aircraft topics). thanks

From: Atkinson, Emily

Sent: Monday, July 30, 2018 2:30 PM

To: Hengst, Benjamin < Hengst, Benjamin@epa.gov >; Sutton, Tia < sutton.tia@epa.gov >

Cc: Rakosnik, Delaney < rakosnik.delaney@epa.gov>

Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Ben and Tia – could you let us know who from OTAQ and/or OGC should be included in this meeting? Draft agenda from Peter Pagano is outlined below.

Draft Agenda

- 1. ICAO Background and Regulatory Policy Development Process
- 2. Industry Engagement with ICAO and its Environment Committee (CAEP)
- 3. nvPM
- 4. NOx
- 5. CO2

Thanks!

From: Rakosnik, Delaney

Sent: Monday, July 30, 2018 2:20 PM

To: Atkinson, Emily < Atkinson. Emily@epa.gov>

Subject: FW: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Am I missing anyone from Ann Arbor? So far I have Chris Grundler, Ben Hengst, Bill Charmley, Byron Bunker. Anyone else?

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]

Sent: Monday, July 30, 2018 7:14 AM

To: Rakosnik, Delaney < rakosnik.delaney@epa.gov>

Cc: Lewis, Josh Lewis_Josh@epa.gov; Hengst, Benjamin Hengst, Benjamin@epa.gov; Atkinson, Emily

Atkinson.Emily@epa.gov>

Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Delaney

Thanks for the message. This is to confirm that the meeting time on Sept 20 will work on our end. We will be in touch to provide participant names closer to the meeting date. Please let me know what additional information you may need. All the best

Pete Pagano

From: Rakosnik, Delaney <rakosnik.delaney@epa.gov>

Sent: Friday, July 27, 2018 12:31:07 PM

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Cc: Lewis, Josh; Hengst, Benjamin; Atkinson, Emily

Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Peter,

Bill Wehrum can accommodate a 45 min meeting on Sept 20th at 10am. How does that time work for your schedules?

Many thanks,

Delaney Rakosnik Staff Assistant Immediate Office of the Assistant Administrator Office of Air and Radiation, USEPA Room 5406A, 1200 Pennsylvania Avenue NW

Washington, DC 20460 Voice: 202-564-0935

Email: rakosnik.delaney@epa.gov

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]

Sent: Monday, July 23, 2018 3:17 PM

To: Rakosnik, Delaney <rakosnik.delaney@epa.gov>

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- 4. NOx
- 5. CO2

Sincerely,

Peter A. Pagano Director, Environment The Boeing Company 703-414-6486

Email: peter.a.pagano@boeing.com

From: Samulski, Michael [samulski.michael@epa.gov]

Sent: 8/20/2018 3:50:35 PM

To: Manning, Bryan [manning.bryan@epa.gov]

Subject: RE: Materials for Friday's Briefing with Bill Wehrum on Aircraft CO2 NPRM

Attachments: Briefing for Bill Wehrum on Aircraft CO2 NPRM_8-20-18 - mjs.pptx

Thanks Bryan. I made a few edits. See what you think.

Mike

Michael Samulski

U.S. Environmental Protection Agency Office of Transportation and Air Quality Director, Large Marine and Aviation Center 1 (734) 214-4532 samulski.michael@epa.gov

From: Manning, Bryan

Sent: Monday, August 20, 2018 8:28 AM

To: Samulski, Michael <samulski.michael@epa.gov>

Subject: Materials for Friday's Briefing with Bill Wehrum on Aircraft CO2 NPRM

Hi Mike,

Ex. 6 Personal Privacy (PP)

As you may have seen, the meeting with Bill Wehrum was moved to

Friday, August 24 at 10:00.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks,

Bryan

Bryan Manning
U.S. EPA Office of Transportation and Air Quality
Large Marine and Aviation Center
2000 Traverwood Drive
Ann Arbor, MI 48105
(ph) 734-214-4832 (fax) 734-214-4816
manning.bryan@epa.gov

From: Samulski, Michael

Sent: Tuesday, August 14, 2018 3:25 PM

To: OTAQ Materials < OTAQ Materials @epa.gov>

Cc: Orlin, David <<u>Orlin.David@epa.gov</u>>; Thrift, Mike <<u>thrift.mike@epa.gov</u>>; Maeroff, Bruce <<u>Maeroff.Bruce@epa.gov</u>>; Yen, David <<u>Yen.David@epa.gov</u>>; Mueller, John <<u>mueller.john@epa.gov</u>>; Leggett, Cullen <<u>Leggett.Cullen@epa.gov</u>>;

Manning, Bryan <<u>manning.bryan@epa.gov</u>>; Charmley, William <<u>charmley.william@epa.gov</u>> **Subject:** Materials for Tomorrow's Briefing with Chris on Aircraft CO2 NPRM

The briefing materials are attached.

Mike

Michael Samulski U.S. Environmental Protection Agency Office of Transportation and Air Quality Director, Large Marine and Aviation Center 1 (734) 214-4532

samulski.michael@epa.gov

From: Gonzalez, Gail [Gonzalez.Gail@epa.gov]

Sent: 8/13/2018 3:13:26 PM

To: Maeroff, Bruce [Maeroff.Bruce@epa.gov]; Samulski, Michael [samulski.michael@epa.gov]; Leggett, Cullen

[Leggett.Cullen@epa.gov]; Manning, Bryan [manning.bryan@epa.gov]; Lewis, Josh [Lewis.Josh@epa.gov]; Cook,

Leila [cook.leila@epa.gov]; Hengst, Benjamin [Hengst.Benjamin@epa.gov]; Charmley, William

[charmley.william@epa.gov]; Simon, Karl [Simon.Karl@epa.gov]; Bynum, Cheryl [bynum.cheryl@epa.gov]; Grundler,

Christopher [grundler.christopher@epa.gov]

Subject: FW: AA Wehrum (& OTAQ) meeting with Federal Express Senior VP & General Counsel Rush O'Keefe on Tuesday,

August 15

Good Morning - Correction: The date for this meeting should be Tuesday, August 14 NOT Tuesday, August 15

Thank you,

Gail Gonzalez

OTAQ, Assessment and Standards Division - Ann Arbor Supporting the US EPA through a Cooperative Agreement with SSAI

734-214-4303

From: Maeroff, Bruce

Sent: Monday, August 13, 2018 11:04 AM **To:** Gonzalez, Gail < Gonzalez. Gail@epa.gov>

Subject: FW: AA Wehrum (& OTAQ) meeting with Federal Express Senior VP & General Counsel Rush O'Keefe on

Tuesday, August 15

Correct it to Tuesday, August 14.... (I think?- thanks to you looking it up)

Bruce Maeroff

Senior Service America, Inc.

Supporting the U.S. EPA through a Cooperative

Agreement under the SEE Program, Assessment and Standards Division,

Large Marine and Aviation Center

2000 Traverwood Drive

Ann Arbor, MI 48105 U.S.A.

Cube N130

ph (734) 214-4404 fax (734) 214-4816

maeroff.bruce@epa.gov

From: Samulski, Michael

Sent: Monday, August 13, 2018 9:55 AM

To: Leggett, Cullen < Leggett. Cullen@epa.gov >; Maeroff, Bruce < Maeroff. Bruce@epa.gov >

Subject: FW: AA Wehrum (& OTAQ) meeting with Federal Express Senior VP & General Counsel Rush O'Keefe on

Tuesday, August 15

Ex. 5 Deliberative Process (DP)

Michael Samulski

U.S. Environmental Protection Agency Office of Transportation and Air Quality

Director, Large Marine and Aviation Center 1 (734) 214-4532

samulski.michael@epa.gov *******************************

From: Charmley, William

Sent: Monday, August 13, 2018 9:45 AM

To: Manning, Bryan <manning.bryan@epa.gov>; Samulski, Michael <samulski.michael@epa.gov>

Subject: Fwd: AA Wehrum (& OTAQ) meeting with Federal Express Senior VP & General Counsel Rush O'Keefe on

Tuesday, August 15

Sent from my iPhone

Begin forwarded message:

From: "Lewis, Josh" < Lewis.Josh@epa.gov > Date: August 13, 2018 at 9:15:20 AM EDT To: "Cook, Leila" < cook.leila@epa.gov >

Cc: "Hengst, Benjamin" < Hengst, Benjamin@epa.gov>, "Charmley, William"

<charmley.william@epa.gov>

Subject: RE: AA Wehrum (& OTAQ) meeting with Federal Express Senior VP & General Counsel Rush

O'Keefe on Tuesday, August 15

Additional background from FedEx ahead of the meeting at 10 am tomorrow: (cut from an email Bill got from the FedEx CEO)

Ex. 4 CBI

The KC-46A is powered by Pratt & Whitney 4062 engines which can also be used on the 767F as the PW 4000 series engines powered many passenger 767's.

Ex. 4 CBI

Ex. 4 CBI

From: Lewis, Josh

Sent: Friday, August 10, 2018 5:55 PM **To:** Cook, Leila <cook.leila@epa.gov>

Cc: Hengst, Benjamin < Hengst.Benjamin@epa.gov >; Charmley, William < charmley.william@epa.gov > Subject: Re: AA Wehrum (& OTAQ) meeting with Federal Express Senior VP & General Counsel Rush

O'Keefe on Tuesday, August 15

It's aircraft co2. Boeing (Pete Pagano) will also be there. Fed ex has one plane in particular they want to discuss with bill/Otaq. I likely have some more info in email that I'll dig out.

There's also a tote meeting that popped up...which you've probably already seen

On Aug 10, 2018, at 5:29 PM, Cook, Leila <cook.leila@epa.gov> wrote:

Hi Josh,

Today OTAQ received an invite referenced below for Bill W.' meeting with FEDEX on 8/15. There is no information in the appt and at the moment we are not thinking we know what the subject might be. In Bill's public calendar we located another FedEx meeting from 7/25th. We don't know whether they have any relationship. Anything you can pass along would be greatly appreciated.

Lee

From: Charmley, William

Sent: Friday, August 10, 2018 5:24 PM

To: Grundler, Christopher <grundler.christopher@epa.gov>

Cc: Samulski, Michael <samulski.michael@epa.gov>; Manning, Bryan

<manning.bryan@epa.gov>; Cook, Leila <cook.leila@epa.gov>; Hengst, Benjamin
<Hengst.Benjamin@epa.gov>; Simon, Karl <Simon.Karl@epa.gov>; Bynum, Cheryl
<bynum.cheryl@epa.gov>

Subject: RE: AA Wehrum (& OTAQ) meeting with Federal Express Senior VP & General Counsel Rush O'Keefe on Tuesday, August 15

Chris -

I just saw on AA Wehrum's public calendar the following entry –

Can you, Ben or Lee look at AA Wehrum's internal calendar – maybe the meeting next week on the 15th is related to the meeting AA Wehrum had on July 25 with FedEx.

Thanks

Bill

Wednesday, July 25, 2018

ED_002812_00005331-00003

ø

9:00AM	Meeting with FedEx Corporation	EPA Headquarters
9:45AM	Staff Briefings	EPA Headquarters
1:00PM	Meeting with Chemours	EPA Headquarters
2:00PM	Staff Briefings	EPA Headquarters

From: Charmley, William

Sent: Friday, August 10, 2018 5:14 PM

To: Grundler, Christopher <grundler.christopher@epa.gov>

Cc: Michael Samulski (samulski.michael@epa.gov) <samulski.michael@epa.gov>; Manning, Bryan <manning.bryan@epa.gov>; Cook, Leila <cook.leila@epa.gov>; Hengst,

Benjamin < Hengst. Benjamin@epa.gov>; Simon, Karl (Simon. Karl@epa.gov)

<Simon.Karl@epa.gov>; Bynum, Cheryl <bynum.cheryl@epa.gov>

Subject: AA Wehrum (& OTAQ) meeting with Federal Express Senior VP & General

Counsel Rush O'Keefe on Tuesday, August 15

Dear Chris -

This afternoon you, Ben, Lee and I received an invitation from AA Wehrum for a meeting that AA Wehrum has on Tuesday with Ruch O'Keefe, a Senior VP and General Counsel for FedEx Express.

I don't know what this meeting is about, but I think that perhaps we heard AA Wehrum mention this person's name in the past month or two regarding aircraft – but I just can't remember. I have included Bryan and Mike in case they know anything about Mr. O'Keefe in the context of aircraft and/or ICAO. I have also included Karl and Cheryl – as I know that FedEx is a SmartWay member, so maybe they know Mr. O'Keefe.

In the heavy-duty Phase 1 and Phase 2 rulemaking, the group organized by Pat Quinn, the "Heavy-duty Leadership Group" included Fed Ex, and for that group FedEx was primarily represented by Mitch Jackson, who is a VP for Environmental Affairs and the Chief Sustainability Officer for FedEx Corporation.

That's what I know on this.

Thanks Bill

From: Leggett, Cullen [Leggett.Cullen@epa.gov]

Sent: 4/24/2019 7:12:26 PM

To: Thrift, Mike [thrift.mike@epa.gov]; Orlin, David [Orlin.David@epa.gov]; Samulski, Michael

[samulski.michael@epa.gov]; Manning, Bryan [manning.bryan@epa.gov]; Yen, David [Yen.David@epa.gov]; Maeroff,

Bruce [Maeroff.Bruce@epa.gov]

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Yes, there is a direct converstion. We can multiply everything by 3.16 and convert from kg_{fuel burn} to CO₂

Regards, Cullen Leggett +1 734-214-4514

From: Thrift, Mike

Sent: Monday, April 22, 2019 17:18 PM

To: Orlin, David <Orlin.David@epa.gov>; Leggett, Cullen <Leggett.Cullen@epa.gov>; Samulski, Michael <samulski.michael@epa.gov>; Manning, Bryan <manning.bryan@epa.gov>; Yen, David <Yen.David@epa.gov>; Maeroff, Bruce <Maeroff.Bruce@epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ex. 5 Attorney Client (AC)

Ex. 5 Attorney Client (AC)

From: Orlin, David

Sent: Monday, April 22, 2019 1:40 PM

To: Leggett, Cullen < Leggett.Cullen@epa.gov>; Thrift, Mike < thrift.mike@epa.gov>; Samulski, Michael < samulski.michael@epa.gov>; Manning, Bryan < manning.bryan@epa.gov>; Yen, David < Yen.David@epa.gov>; Maeroff, Bruce < Maeroff.Bruce@epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ex. 5 Attorney Client (AC)

David Orlin

U.S. EPA, Office of General Counsel

(202) 564-1222

From: Leggett, Cullen

Sent: Monday, April 22, 2019 4:31 PM

To: Orlin, David <Orlin.David@epa.gov>; Thrift, Mike <thrift.mike@epa.gov>; Samulski, Michael

<samulski.michael@epa.gov>; Manning, Bryan <manning.bryan@epa.gov>; Yen, David <Yen.David@epa.gov>; Maeroff,

Bruce < Maeroff. Bruce@epa.gov >

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

David,

Ex. 5 Attorney Client (AC)

Regards, Cullen Leggett +1 734-214-4514

From: Orlin, David

Sent: Monday, April 22, 2019 15:55 PM

To: Thrift, Mike < thrift, Mike <a href="mailto:thrift.mike

<samulski.michael@epa.gov>; Manning, Bryan <manning.bryan@epa.gov>; Yen, David <Yen.David@epa.gov>; Maeroff,

Bruce < Maeroff. Bruce@epa.gov >

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ex. 5 Attorney Client (AC)

David Orlin

U.S. EPA, Office of General Counsel

(202) 564-1222

From: Thrift, Mike

Sent: Monday, April 15, 2019 3:59 PM

To: Leggett, Cullen < Leggett.Cullen@epa.gov>; Samulski, Michael < samulski.michael@epa.gov>; Manning, Bryan < manning.bryan@epa.gov>; Yen, David < Yen.David@epa.gov>; Maeroff, Bruce < Maeroff.Bruce@epa.gov>; Orlin, David < Orlin.David@epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ex. 5 Attorney Client (AC)

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Sent: Monday, April 15, 2019 11:41 AM

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Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Mike,

Ex. 5 Attorney Client (AC)

Regards, Cullen Leggett +1 734-214-4514

From: Thrift, Mike

Sent: Friday, April 12, 2019 16:40 PM

To: Leggett, Cullen < Leggett.Cullen@epa.gov >; Samulski, Michael < samulski.michael@epa.gov >; Manning, Bryan < manning.bryan@epa.gov >; Yen, David < Yen.David@epa.gov >; Maeroff, Bruce < Maeroff.Bruce@epa.gov >; Orlin, David < Orlin.David@epa.gov >

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ex. 5 Attorney Client (AC)

From: Thrift, Mike

Sent: Friday, April 12, 2019 1:32 PM

To: Leggett, Cullen < Leggett.Cullen@epa.gov >; Samulski, Michael < samulski.michael@epa.gov >; Manning, Bryan < manning.bryan@epa.gov >; Yen, David < Yen.David@epa.gov >; Maeroff, Bruce < Maeroff, Bruce @epa.gov >; Orlin, David < Orlin, David@epa.gov >

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ex. 5 Attorney Client (AC)

From: Leggett, Cullen

Sent: Friday, April 12, 2019 10:31 AM

To: Samulski, Michael <samulski.michael@epa.gov>; Thrift, Mike <thrift.mike@epa.gov>; Manning, Bryan <manning.bryan@epa.gov>; Yen, David <Yen.David@epa.gov>; Maeroff, Bruce <Maeroff.Bruce@epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Mike,

Ex. 5 Deliberative Process (DP)

Regards, Cullen Leggett +1 734-214-4514

From: Samulski, Michael

Sent: Friday, April 12, 2019 13:25 PM

To: Leggett, Cullen < Leggett. Cullen@epa.gov>

Subject: FW: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

From: Charmley, William

Sent: Friday, April 05, 2019 3:03 PM

To: Hengst, Benjamin < Hengst. Benjamin@epa.gov >; Manning, Bryan < manning.bryan@epa.gov >; Samulski, Michael

<samulski.michael@epa.gov>; Grundler, Christopher <grundler.christopher@epa.gov>

Cc: Orlin, David < Orlin. David@epa.gov >; Thrift, Mike < thrift.mike@epa.gov >

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ben -

Thank you for following up with AA Wehrum on this topic.



Ex. 5 Deliberative Process (DP)

Thanks

Bill

From: Hengst, Benjamin

Sent: Thursday, April 04, 2019 11:14 AM

To: Manning, Bryan < manning.bryan@epa.gov >; Charmley, William < charmley.william@epa.gov >

Cc: Orlin, David < Orlin. David @epa.gov >

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ex. 5 Deliberative Process (DP)

From: Manning, Bryan

Sent: Thursday, April 4, 2019 10:39 AM

To: Charmley, William <charmley.william@epa.gov>; Hengst, Benjamin <Hengst, Benjamin@epa.gov>

Cc: Orlin, David <Orlin.David@epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Hi Bill,

I did stop by the fuels meeting in C174, which just ended. You were correct that the agenda was packed, and the video hung up quickly after the fuels discussion ended.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks.

Bryan

Bryan Manning
U.S. EPA Office of Transportation and Air Quality
Large Marine and Aviation Center
2000 Traverwood Drive
Ann Arbor, MI 48105
(ph) 734-214-4832 (fax) 734-214-4816
manning.bryan@epa.gov

From: Charmley, William

Sent: Thursday, April 04, 2019 9:23 AM

To: Hengst, Benjamin < Hengst. Benjamin@epa.gov >; Manning, Bryan < manning.bryan@epa.gov >

Cc: Orlin, David < Orlin. David@epa.gov >

Subject: FW: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ben -

I looked at the 9:30 am fuels meeting agenda for today with AA Wehrum. It looks very packed. I won't be on the call today.

If you think that there will be time to ask AA Wehrum and Clint if they would still like a briefing from OTAQ and OGC regarding the Administrator's question (can EPA set a CO2 requirement that FAA can implement equal to the ICAO CO2 standard without doing a standard setting rule under CAA 231), can you please let Bryan know.

Bryan – the fuels meeting will be in C174 from 9:30 - 10:30am. You should probably go there at about 10:15 in case there is time to ask for an update on the aircraft CO2 topic.

Thanks

Bill

From: Grundler, Christopher

Sent: Wednesday, April 03, 2019 2:53 PM

To: Hengst, Benjamin < Hengst. Benjamin@epa.gov>

Cc: Charmley, William <charmley.william@epa.gov>; Samulski, Michael <samulski.michael@epa.gov>; Thrift, Mike

<thrift.mike@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Manning, Bryan <manning.bryan@epa.gov>

Subject: Re: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Yes. My preference is to raise with Bill tomorrow at end of Fuels mtg

.....

Christopher Grundler, Director

Office of Transportation and Air Quality

U.S. Environmental Protection Agency

202.564.1682 (Washington DC)

734.214.4207 (Ann Arbor MI)

734.645.5221 (mobile)

www.epa.gov/otaq

On Apr 3, 2019, at 2:40 PM, Hengst, Benjamin < Hengst. Benjamin@epa.gov> wrote:

Chris, Bill—with regard to the highlighted text:

We could try to raise this at the fuels weekly tomorrow, if you'd like, at the very end. Or I could try to confirm with Clint.

Any preference? Or other options?

From: Charmley, William

Sent: Wednesday, April 3, 2019 2:10 PM

To: Grundler, Christopher <grundler.christopher@epa.gov>

Cc: Hengst, Benjamin < Hengst. Benjamin@epa.gov >; Samulski, Michael < samulski.michael@epa.gov >;

Thrift, Mike thrift, Mike chiral-bavid@epa.gov; Manning, Bryan <a href

Subject: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Dear Chris and Ben,

Yesterday Boeing and FedEx met with AA Werhum, Principal Deputy AA Anne Idsal, and Deputy AA Clint Woods to discuss the CO2 standard setting rule topic. This meeting was at the industry request. For OTAQ, Brian Manning, Cullen Leggett, John Mueller and Courtney Herbolsheimer. For Boeing and FedEx, the participants were:

- Peter Pagano, Boeing
- John Moloney, Boeing

- Rush O'Keefe, FedEx
- Ralph Carter, FedEx
- Steven Taylor, FedEx

Bryan informed me that Boeing shared with AA Wehrum the same information that Boeing and General Electric shared with Deputy AA Gunasekara on December 7, 2018 (which I participated in).

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks Bill

From: Orlin, David [Orlin.David@epa.gov]

Sent: 4/22/2019 9:04:35 PM

To: Manning, Bryan [manning.bryan@epa.gov]

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

thanks

David Orlin

U.S. EPA, Office of General Counsel

(202) 564-1222

From: Manning, Bryan

Sent: Monday, April 22, 2019 4:56 PM

To: Orlin, David <Orlin.David@epa.gov>; Leggett, Cullen <Leggett.Cullen@epa.gov>; Thrift, Mike <thrift.mike@epa.gov>;

Samulski, Michael <samulski.michael@epa.gov>; Yen, David <Yen.David@epa.gov>; Maeroff, Bruce

<Maeroff.Bruce@epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Hi David,

Yes, it is a direct conversion from fuel burn to CO2 emissions for jet fuel. There are 3.16 kg of CO2 per kg of fuel, and thus, you just multiply aircraft fuel burn (jet fuel) by 3.16 to convert to aircraft CO2 emissions. I hope this information helps.

Thanks,

Bryan

Bryan Manning
U.S. EPA Office of Transportation and Air Quality
Large Marine and Aviation Center
2000 Traverwood Drive
Ann Arbor, MI 48105
(ph) 734-214-4832 (fax) 734-214-4816
manning.bryan@epa.gov

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Sent: Monday, April 22, 2019 4:40 PM

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Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ex. 5 Attorney Client (AC)

David Orlin

U.S. EPA, Office of General Counsel

(202) 564-1222

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Bruce < Maeroff. Bruce@epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

David,

Ex. 5 Attorney Client (AC)

Regards, Cullen Leggett +1 734-214-4514

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Sent: Monday, April 22, 2019 15:55 PM

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Bruce < Maeroff. Bruce@epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ex. 5 Attorney Client (AC)

David Orlin

U.S. EPA, Office of General Counsel

(202) 564-1222

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Sent: Monday, April 15, 2019 3:59 PM

To: Leggett, Cullen < Leggett.Cullen@epa.gov>; Samulski, Michael < samulski.michael@epa.gov>; Manning, Bryan < manning.bryan@epa.gov>; Yen, David < Yen.David@epa.gov>; Maeroff, Bruce < Maeroff.Bruce@epa.gov>; Orlin, David < Orlin.David@epa.gov>

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Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Mike,

Ex. 5 Attorney Client (AC)

Regards, Cullen Leggett +1 734-214-4514

From: Thrift, Mike

Sent: Friday, April 12, 2019 16:40 PM

To: Leggett, Cullen < Leggett.Cullen@epa.gov >; Samulski, Michael < samulski.michael@epa.gov >; Manning, Bryan < manning.bryan@epa.gov >; Yen, David < Yen.David@epa.gov >; Maeroff, Bruce < Maeroff.Bruce@epa.gov >; Orlin, David

<Orlin.David@epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ex. 5 Attorney Client (AC)

From: Thrift, Mike

Sent: Friday, April 12, 2019 1:32 PM

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To: Samulski, Michael <<u>samulski.michael@epa.gov</u>>; Thrift, Mike <<u>thrift.mike@epa.gov</u>>; Manning, Bryan <<u>manning.bryan@epa.gov</u>>; Yen, David <<u>Yen.David@epa.gov</u>>; Maeroff, Bruce <<u>Maeroff.Bruce@epa.gov</u>>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Mike,

Ex. 5 Deliberative Process (DP)

Regards,

Cullen Leggett +1 734-214-4514

From: Samulski, Michael

Sent: Friday, April 12, 2019 13:25 PM

To: Leggett, Cullen < Leggett. Cullen@epa.gov>

Subject: FW: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

From: Charmley, William

Sent: Friday, April 05, 2019 3:03 PM

To: Hengst, Benjamin < Hengst, Benjamin@epa.gov>; Manning, Bryan < manning, bryan@epa.gov>; Samulski, Michael

<samulski.michael@epa.gov>; Grundler, Christopher <grundler.christopher@epa.gov>

Cc: Orlin, David < Orlin. David @epa.gov >; Thrift, Mike < thrift.mike@epa.gov >

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ben -

Thank you for following up with AA Wehrum on this topic.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks

Bill

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Sent: Thursday, April 04, 2019 11:14 AM

To: Manning, Bryan <manning.bryan@epa.gov>; Charmley, William <charmley.william@epa.gov>

Cc: Orlin, David < Orlin. David @epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ex. 5 Deliberative Process (DP)

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Sent: Thursday, April 4, 2019 10:39 AM

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Cc: Orlin, David < Orlin. David @epa.gov>

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Hi Bill,

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Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks,

Bryan

Bryan Manning
U.S. EPA Office of Transportation and Air Quality
Large Marine and Aviation Center
2000 Traverwood Drive
Ann Arbor, MI 48105
(ph) 734-214-4832 (fax) 734-214-4816
manning.bryan@epa.gov

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Cc: Orlin, David < Orlin. David@epa.gov>

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Bryan – the fuels meeting will be in C174 from 9:30 - 10:30am. You should probably go there at about 10:15 in case there is time to ask for an update on the aircraft CO2 topic.

Thanks

Bill

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Cc: Charmley, William < charmley.william@epa.gov; Samulski, Michael <samulski.michael@epa.gov; Thrift, Mike

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Subject: Re: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Yes. My preference is to raise with Bill tomorrow at end of Fuels mtg

Christopher Grundler, Director

Office of Transportation and Air Quality

U.S. Environmental Protection Agency

202.564.1682 (Washington DC)

734.214.4207 (Ann Arbor MI)

734.645.5221 (mobile)

www.epa.gov/otaq

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Sent: Wednesday, April 3, 2019 2:10 PM

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Cc: Hengst, Benjamin < Hengst. Benjamin@epa.gov>; Samulski, Michael < samulski.michael@epa.gov>;

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Ex. 5 Deliberative Process (DP)

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Thanks

Bill

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Sent: 4/17/2019 8:38:00 PM

To: Yen, David [Yen.David@epa.gov]; Thrift, Mike [thrift.mike@epa.gov]; Samulski, Michael

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Orlin, David [Orlin.David@epa.gov]

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

David.

Ex. 5 Deliberative Process (DP)

Regards, Cullen Leggett

+1 734-214-4514

From: Yen, David

Sent: Wednesday, April 17, 2019 16:23 PM

To: Leggett, Cullen <Leggett.Cullen@epa.gov>; Thrift, Mike <thrift.mike@epa.gov>; Samulski, Michael <samulski.michael@epa.gov>; Manning, Bryan <manning.bryan@epa.gov>; Maeroff, Bruce <Maeroff.Bruce@epa.gov>;

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Sent: Friday, April 05, 2019 3:03 PM

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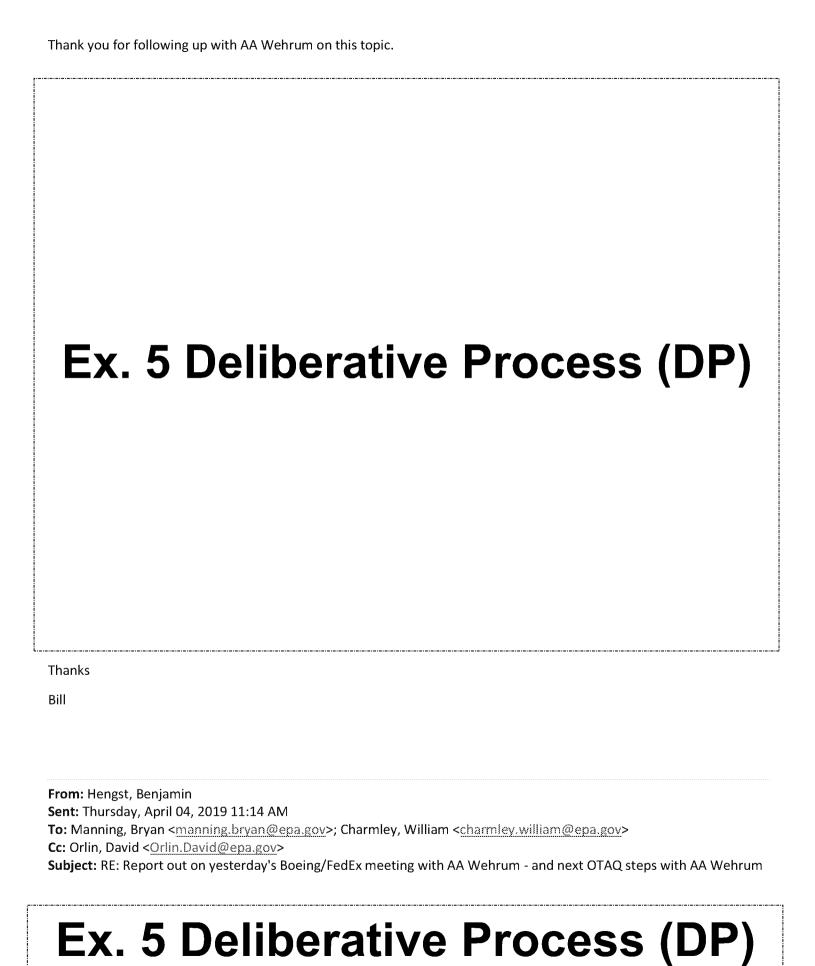
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Attachments: Alternative means of adopting the ICAO Std+mt041219.pptx

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Cc: Charmley, William <<u>charmley.william@epa.gov</u>>; Samulski, Michael <<u>samulski.michael@epa.gov</u>>; Thrift, Mike

<<u>thrift.mike@epa.gov</u>>; Orlin, David <<u>Orlin.David@epa.gov</u>>; Manning, Bryan <<u>manning.bryan@epa.gov</u>>

Subject: Re: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Yes. My preference is to raise with Bill tomorrow at end of Fuels mtg

Christopher Grundler, Director

Office of Transportation and Air Quality

U.S. Environmental Protection Agency

202.564.1682 (Washington DC)

734.214.4207 (Ann Arbor MI)

734.645.5221 (mobile)

www.epa.gov/otaq

On Apr 3, 2019, at 2:40 PM, Hengst, Benjamin < Hengst, Benjamin@epa.gov> wrote:

Chris, Bill—with regard to the highlighted text:

We could try to raise this at the fuels weekly tomorrow, if you'd like, at the very end. Or I could try to confirm with Clint.

Any preference? Or other options?

From: Charmley, William

Sent: Wednesday, April 3, 2019 2:10 PM

To: Grundler, Christopher <grundler.christopher@epa.gov>

Cc: Hengst, Benjamin < Hengst.Benjamin@epa.gov>; Samulski, Michael < samulski.michael@epa.gov>; Thrift, Mike < thrift.mike@epa.gov>; Orlin, David < Orlin.David@epa.gov>; Manning, Bryan < manning.bryan@epa.gov>

Subject: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Dear Chris and Ben,

Yesterday Boeing and FedEx met with AA Werhum, Principal Deputy AA Anne Idsal, and Deputy AA Clint Woods to discuss the CO2 standard setting rule topic. This meeting was at the industry request. For OTAQ, Brian Manning, Cullen Leggett, John Mueller and Courtney Herbolsheimer. For Boeing and FedEx, the participants were:

- Peter Pagano, Boeing
- John Moloney, Boeing
- Rush O'Keefe, FedEx
- Ralph Carter, FedEx
- Steven Taylor, FedEx

Bryan informed me that Boeing shared with AA Wehrum the same information that Boeing and General Electric shared with Deputy AA Gunasekara on December 7, 2018 (which I participated in).

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks Bill

Message

From: Leggett, Cullen [Leggett.Cullen@epa.gov]

Sent: 4/12/2019 5:31:18 PM

To: Samulski, Michael [samulski.michael@epa.gov]; Thrift, Mike [thrift.mike@epa.gov]; Manning, Bryan

[manning.bryan@epa.gov]; Yen, David [Yen.David@epa.gov]; Maeroff, Bruce [Maeroff.Bruce@epa.gov]

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ex. 5 Deliberative Process (DP)

Regards,

Cullen Leggett

+1 734-214-4514

From: Samulski, Michael

Sent: Friday, April 12, 2019 13:25 PM

To: Leggett, Cullen < Leggett. Cullen@epa.gov>

Subject: FW: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

From: Charmley, William

Sent: Friday, April 05, 2019 3:03 PM

To: Hengst, Benjamin < Hengst.Benjamin@epa.gov >; Manning, Bryan < manning.bryan@epa.gov >; Samulski, Michael

<samulski.michael@epa.gov>; Grundler, Christopher <grundler.christopher@epa.gov>

Cc: Orlin, David <Orlin.David@epa.gov>; Thrift, Mike <thrift.mike@epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ben -

Thank you for following up with AA Wehrum on this topic.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks

Bill

From: Hengst, Benjamin

Sent: Thursday, April 04, 2019 11:14 AM

To: Manning, Bryan <manning.bryan@epa.gov>; Charmley, William <charmley.william@epa.gov>

Cc: Orlin, David <Orlin.David@epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ex. 5 Deliberative Process (DP)

From: Manning, Bryan

Sent: Thursday, April 4, 2019 10:39 AM

To: Charmley, William <charmley.william@epa.gov>; Hengst, Benjamin <Hengst,Benjamin@epa.gov>

Cc: Orlin, David <Orlin.David@epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Hi Bill.

Ex. 5 Deliberative Process (DP)

Thanks,

Bryan

Bryan Manning
U.S. EPA Office of Transportation and Air Quality
Large Marine and Aviation Center
2000 Traverwood Drive
Ann Arbor, MI 48105
(ph) 734-214-4832 (fax) 734-214-4816
manning.bryan@epa.gov

From: Charmley, William

Sent: Thursday, April 04, 2019 9:23 AM

To: Hengst, Benjamin < Hengst. Benjamin@epa.gov >; Manning, Bryan < manning.bryan@epa.gov >

Cc: Orlin, David < Orlin. David @epa.gov >

Subject: FW: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ben -

I looked at the 9:30 am fuels meeting agenda for today with AA Wehrum. It looks very packed. I won't be on the call today.

If you think that there will be time to ask AA Wehrum and Clint if they would still like a briefing from OTAQ and OGC regarding the Administrator's question (can EPA set a CO2 requirement that FAA can implement equal to the ICAO CO2 standard without doing a standard setting rule under CAA 231), can you please let Bryan know.

Bryan – the fuels meeting will be in C174 from 9:30 - 10:30am. You should probably go there at about 10:15 in case there is time to ask for an update on the aircraft CO2 topic.

Thanks

Bill

From: Grundler, Christopher

Sent: Wednesday, April 03, 2019 2:53 PM

To: Hengst, Benjamin < Hengst. Benjamin@epa.gov>

Cc: Charmley, William <charmley.william@epa.gov>; Samulski, Michael <samulski.michael@epa.gov>; Thrift, Mike

<thrift.mike@epa.gov>; Orlin, David<Orlin.David@epa.gov>; Manning, Bryan <manning.bryan@epa.gov>
Subject: Re: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Yes. My preference is to raise with Bill tomorrow at end of Fuels mtg

Christopher Grundler, Director

Office of Transportation and Air Quality

U.S. Environmental Protection Agency

202.564.1682 (Washington DC)

734.214.4207 (Ann Arbor MI)

734.645.5221 (mobile)

www.epa.gov/otaq

On Apr 3, 2019, at 2:40 PM, Hengst, Benjamin < Hengst. Benjamin@epa.gov > wrote:

Chris, Bill—with regard to the highlighted text:

We could try to raise this at the fuels weekly tomorrow, if you'd like, at the very end. Or I could try to confirm with Clint.

Any preference? Or other options?

From: Charmley, William

Sent: Wednesday, April 3, 2019 2:10 PM

To: Grundler, Christopher <grundler.christopher@epa.gov>

Cc: Hengst, Benjamin < Hengst.Benjamin@epa.gov>; Samulski, Michael < samulski.michael@epa.gov>;

Thrift, Mike thrift, Mike <a href="mailto:thrift.mike@epa.g

<manning.bryan@epa.gov>

Subject: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Dear Chris and Ben,

Yesterday Boeing and FedEx met with AA Werhum, Principal Deputy AA Anne Idsal, and Deputy AA Clint Woods to discuss the CO2 standard setting rule topic. This meeting was at the industry request. For OTAQ, Brian Manning, Cullen Leggett, John Mueller and Courtney Herbolsheimer. For Boeing and FedEx, the participants were:

- Peter Pagano, Boeing
- John Moloney, Boeing
- Rush O'Keefe, FedEx
- Ralph Carter, FedEx
- Steven Taylor, FedEx

Bryan informed me that Boeing shared with AA Wehrum the same information that Boeing and General Electric shared with Deputy AA Gunasekara on December 7, 2018 (which I participated in).

Ex. 4 CBI

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks Bill

Message

From: Burch, Julia [Burch.Julia@epa.gov]

Sent: 7/30/2018 7:23:02 PM

To: Manning, Bryan [manning.bryan@epa.gov]; Samulski, Michael [samulski.michael@epa.gov]

CC: Leggett, Cullen [Leggett.Cullen@epa.gov]

Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Ok thanks.

From: Manning, Bryan

Sent: Monday, July 30, 2018 3:22 PM

To: Burch, Julia <Burch.Julia@epa.gov>; Samulski, Michael <samulski.michael@epa.gov>

Cc: Leggett, Cullen < Leggett. Cullen@epa.gov>

Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Julia,

Mike Samulski has always encouraged us to invite the full aviation team for meetings with senior management. I added Bob Giannelli and Jeff Stevens because they are the team's experts in aircraft engine nvPM testing. Bruce Maeroff and David Yen are members of the aviation team who work on a number of the agenda items. David Yen should be on travel for an ICAO working group meeting during the time of this Boeing meeting, and I included him in case his trip does not occur for some reason (although this is not likely). If we need to limit participation, let us know.

Thanks,

Bryan

Bryan Manning
U.S. EPA Office of Transportation and Air Quality
Large Marine and Aviation Center
2000 Traverwood Drive
Ann Arbor, MI 48105
(ph) 734-214-4832 (fax) 734-214-4816
manning.bryan@epa.gov

From: Burch, Julia

Sent: Monday, July 30, 2018 3:14 PM

To: Manning, Bryan <manning.bryan@epa.gov>; Samulski, Michael <samulski.michael@epa.gov>

Cc: Leggett, Cullen < Leggett. Cullen@epa.gov>

Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Sorry for the typo.

That is a lot of people. Do we need all of them because of the breadth of topics covered?

Thanks!

From: Manning, Bryan

Sent: Monday, July 30, 2018 3:11 PM

To: Burch, Julia <Burch, Julia@epa.gov>; Samulski, Michael <samulski, michael@epa.gov>

Cc: Leggett, Cullen < Leggett. Cullen@epa.gov>

Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Thank you for the message, Julia. Could you add the following folks from OTAQ: Bob Giannelli, Bruce Maeroff, Jeff Stevens (Jeffrey A. Stevens for his email address), and David Yen? I am not sure if it matters, but Mike Samulski's name is misspelled below.

Thanks again,

Bryan

Bryan Manning
U.S. EPA Office of Transportation and Air Quality
Large Marine and Aviation Center
2000 Traverwood Drive
Ann Arbor, MI 48105
(ph) 734-214-4832 (fax) 734-214-4816
manning.bryan@epa.gov

From: Burch, Julia

Sent: Monday, July 30, 2018 2:54 PM

To: Samulski, Michael <samulski.michael@epa.gov>

Cc: Manning, Bryan < manning.bryan@epa.gov>; Leggett, Cullen < Leggett.Cullen@epa.gov> Subject: FW: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Boeing has requested another meeting with AA Wehrum. Please confirm that these are the attendees that I should put forward for the meeting:

- Chris Grundler
- Bill Charmley
- Mike Samulksi
- Byran Manning
- Cullen Leggett
- John Mueller
- Mike Thrift
- David Orlin
- Julia Burch

Am I missing anyone? Seems like they want to cover several topics. See agenda below.

Thanks!

From: Hengst, Benjamin

Sent: Monday, July 30, 2018 2:33 PM

To: Atkinson, Emily <<u>Atkinson.Emily@epa.gov</u>>; Sutton, Tia <<u>sutton.tia@epa.gov</u>>
Cc: Rakosnik, Delaney <<u>rakosnik.delaney@epa.gov</u>>; Burch, Julia <<u>Burch.Julia@epa.gov</u>>
Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Looping in Julia on this on this one for a response (Julia covers aircraft topics). thanks

From: Atkinson, Emily

Sent: Monday, July 30, 2018 2:30 PM

To: Hengst, Benjamin < Hengst. Benjamin@epa.gov >; Sutton, Tia < sutton.tia@epa.gov >

Cc: Rakosnik, Delaney <rakosnik.delaney@epa.gov>

Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Ben and Tia – could you let us know who from OTAQ and/or OGC should be included in this meeting? Draft agenda from Peter Pagano is outlined below.

Draft Agenda

- 1. ICAO Background and Regulatory Policy Development Process
- 2. Industry Engagement with ICAO and its Environment Committee (CAEP)
- 3. nvPM
- 4. NOx
- 5. CO2

Thanks!

From: Rakosnik, Delaney

Sent: Monday, July 30, 2018 2:20 PM

To: Atkinson, Emily < Atkinson, Emily@epa.gov>

Subject: FW: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Am I missing anyone from Ann Arbor? So far I have Chris Grundler, Ben Hengst, Bill Charmley, Byron Bunker. Anyone else?

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]

Sent: Monday, July 30, 2018 7:14 AM

To: Rakosnik, Delaney < rakosnik.delaney@epa.gov>

Cc: Lewis, Josh <Lewis, Josh@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Atkinson, Emily

Atkinson.Emilty@epa.gov

Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Delaney

Thanks for the message. This is to confirm that the meeting time on Sept 20 will work on our end. We will be in touch to provide participant names closer to the meeting date. Please let me know what additional information you may need. All the best

Pete Pagano

From: Rakosnik, Delaney < rakosnik.delaney@epa.gov>

Sent: Friday, July 27, 2018 12:31:07 PM

To: Pagano (US), Peter A

Cc: Lewis, Josh; Hengst, Benjamin; Atkinson, Emily

Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Peter,

Bill Wehrum can accommodate a 45 min meeting on Sept 20th at 10am. How does that time work for your schedules?

Many thanks,

Delaney Rakosnik Staff Assistant Immediate Office of the Assistant Administrator Office of Air and Radiation, USEPA Room 5406A, 1200 Pennsylvania Avenue NW Washington, DC 20460

Voice: 202-564-0935

Email: rakosnik.delaney@epa.gov

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]

Sent: Monday, July 23, 2018 3:17 PM

To: Rakosnik, Delaney < rakosnik.delaney@epa.gov>

Cc: Lewis, Josh < Lewis, Josh@epa.gov>; Hengst, Benjamin < Hengst, Benjamin@epa.gov> Subject: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Delaney

The purpose of this message is to request a meeting with Assistant Administrator Wehrum to discuss aircraft emissions issues that are within the jurisdiction of the International Civil Aviation Organization's (ICAO) Environment Committee. OTAQ staff are actively engaged in policy formulation at ICAO as well as in developing domestic implementing regulations. Meeting participants would include representatives from Boeing; General Electric; and the Aerospace Industries Association. Attached below is a draft agenda which includes specific discussion topics. We are requesting Sept 19 or 20 as potential meeting dates because out of town participants for both companies will already be in DC for an industry meeting earlier in the week. We will work with you to find a convenient time that works for Mr Wehrum on either of those days. You should know that I have already provided background regarding this request to OTAQ (Ben Hengst). Thank you in advance for your assistance and please let me know if any additional information would be helpful to you.

Draft Agenda

- 1. ICAO Background and Regulatory Policy Development Process
- 2. Industry Engagement with ICAO and its Environment Committee (CAEP)
- 3. nvPM
- 4. NOx
- 5. CO2

Sincerely,

Peter A. Pagano Director, Environment The Boeing Company 703-414-6486

Email: peter.a.pagano@boeing.com

Message

From: Manning, Bryan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9507F60B9C47448A88DD5D270BFC2DD4-MANNING, BRYAN]

Sent: 8/20/2018 7:20:49 PM

To: Samulski, Michael [samulski.michael@epa.gov]

Subject: RE: Materials for Friday's Briefing with Bill Wehrum on Aircraft CO2 NPRM

Okay, Mike. Ex. 5 Deliberative Process (DP) The briefing looks good.

Bryan

Bryan Manning
U.S. EPA Office of Transportation and Air Quality
Large Marine and Aviation Center
2000 Traverwood Drive
Ann Arbor, MI 48105
(ph) 734-214-4832 (fax) 734-214-4816

From: Samulski, Michael

manning.bryan@epa.gov

Sent: Monday, August 20, 2018 1:56 PM

To: Manning, Bryan <manning.bryan@epa.gov>

Subject: RE: Materials for Friday's Briefing with Bill Wehrum on Aircraft CO2 NPRM

Ex. 5 Deliberative Process (DP)

Mike

Michael Samulski U.S. Environmental Protection Agency Office of Transportation and Air Quality Director, Large Marine and Aviation Center 1 (734) 214-4532

samulski.michael@epa.gov

From: Manning, Bryan

Sent: Monday, August 20, 2018 1:15 PM

To: Samulski, Michael <samulski.michael@epa.gov>

Subject: RE: Materials for Friday's Briefing with Bill Wehrum on Aircraft CO2 NPRM

Ex. 5 Deliberative Process (DP)

Thanks again,

Bryan

Bryan Manning
U.S. EPA Office of Transportation and Air Quality
Large Marine and Aviation Center
2000 Traverwood Drive
Ann Arbor, MI 48105
(ph) 734-214-4832 (fax) 734-214-4816
manning.bryan@epa.gov

From: Samulski, Michael

Sent: Monday, August 20, 2018 11:51 AM
To: Manning, Bryan <manning.bryan@epa.gov>

Subject: RE: Materials for Friday's Briefing with Bill Wehrum on Aircraft CO2 NPRM

Thanks Bryan. I made a few edits. See what you think.

Mike

Michael Samulski
U.S. Environmental Protection Agency
Office of Transportation and Air Quality
Director, Large Marine and Aviation Center
1 (734) 214-4532
samulski.michael@epa.gov

From: Manning, Bryan

Sent: Monday, August 20, 2018 8:28 AM

To: Samulski, Michael <samulski.michael@epa.gov>

Subject: Materials for Friday's Briefing with Bill Wehrum on Aircraft CO2 NPRM

Hi Mike,

Ex. 6 Personal Privacy (PP)

As you may have seen, the meeting with Bill Wehrum was moved to

Friday, August 24 at 10:00.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

ā

Thanks,

Bryan

yan

Bryan Manning
U.S. EPA Office of Transportation and Air Quality
Large Marine and Aviation Center
2000 Traverwood Drive
Ann Arbor, MI 48105
(ph) 734-214-4832 (fax) 734-214-4816
manning.bryan@epa.gov

From: Samulski, Michael

Sent: Tuesday, August 14, 2018 3:25 PM

To: OTAQ Materials < OTAQ Materials@epa.gov>

Cc: Orlin, David <<u>Orlin.David@epa.gov</u>>; Thrift, Mike <<u>thrift.mike@epa.gov</u>>; Maeroff, Bruce <<u>Maeroff.Bruce@epa.gov</u>>; Yen, David <<u>Yen.David@epa.gov</u>>; Mueller, John <<u>mueller.john@epa.gov</u>>; Leggett, Cullen <<u>Leggett.Cullen@epa.gov</u>>;

Manning, Bryan <manning.bryan@epa.gov>; Charmley, William <charmley.william@epa.gov>

Subject: Materials for Tomorrow's Briefing with Chris on Aircraft CO2 NPRM

The briefing materials are attached.

Mike

Michael Samulski U.S. Environmental Protection Agency Office of Transportation and Air Quality Director, Large Marine and Aviation Center 1 (734) 214-4532 samulski.michael@epa.gov

From: Manning, Bryan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9507F60B9C47448A88DD5D270BFC2DD4-MANNING, BRYAN]

Sent: 8/20/2018 5:15:01 PM

To: Samulski, Michael [samulski.michael@epa.gov]

Subject: RE: Materials for Friday's Briefing with Bill Wehrum on Aircraft CO2 NPRM **Attachments**: Briefing for Bill Wehrum on Aircraft CO2 NPRM_8-20-18 - mjs+BM.pptx

Ex. 5 Deliberative Process (DP)

Thanks again,

Bryan

Bryan Manning
U.S. EPA Office of Transportation and Air Quality
Large Marine and Aviation Center
2000 Traverwood Drive
Ann Arbor, MI 48105
(ph) 734-214-4832 (fax) 734-214-4816
manning.bryan@epa.gov

From: Samulski, Michael

Sent: Monday, August 20, 2018 11:51 AM **To:** Manning, Bryan <manning.bryan@epa.gov>

Subject: RE: Materials for Friday's Briefing with Bill Wehrum on Aircraft CO2 NPRM

Thanks Bryan. I made a few edits. See what you think.

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Michael Samulski U.S. Environmental Protection Agency Office of Transportation and Air Quality Director, Large Marine and Aviation Center 1 (734) 214-4532

samulski.michael@epa.gov

From: Manning, Bryan

Sent: Monday, August 20, 2018 8:28 AM

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Ex. 5 Deliberative Process (DP)

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Sent: Tuesday, August 14, 2018 3:25 PM

To: OTAQ Materials < OTAQ Materials @epa.gov>

Cc: Orlin, David <<u>Orlin.David@epa.gov</u>>; Thrift, Mike <<u>thrift.mike@epa.gov</u>>; Maeroff, Bruce <<u>Maeroff.Bruce@epa.gov</u>>; Yen, David <<u>Yen.David@epa.gov</u>>; Mueller, John <<u>mueller.john@epa.gov</u>>; Leggett, Cullen <<u>Leggett.Cullen@epa.gov</u>>;

Manning, Bryan < manning.bryan@epa.gov>; Charmley, William < charmley.william@epa.gov>

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Mike

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samulski.michael@epa.gov

ED_002812_00005359-00002

From: Manning, Bryan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9507F60B9C47448A88DD5D270BFC2DD4-MANNING, BRYAN]

Sent: 4/18/2019 9:30:58 PM

To: Leggett, Cullen [Leggett.Cullen@epa.gov]

Subject: CO2 Briefing for Bill

Hi Cullen,

Ex. 5 Deliberative Process (DP)

Thanks,

Bryan

Bryan Manning
U.S. EPA Office of Transportation and Air Quality
Large Marine and Aviation Center
2000 Traverwood Drive
Ann Arbor, MI 48105
(ph) 734-214-4832 (fax) 734-214-4816
manning.bryan@epa.gov

From: Thrift, Mike

Sent: Thursday, April 18, 2019 4:34 PM

To: Leggett, Cullen <Leggett.Cullen@epa.gov>; Samulski, Michael <samulski.michael@epa.gov>; Manning, Bryan <manning.bryan@epa.gov>; Yen, David <Yen.David@epa.gov>; Maeroff, Bruce <Maeroff.Bruce@epa.gov>; Orlin, David <Orlin.David@epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ex. 5 Attorney Client (AC)

From: Leggett, Cullen

Sent: Wednesday, April 17, 2019 12:00 PM

To: Thrift, Mike <thrift.mike@epa.gov>; Samulski, Michael <samulski.michael@epa.gov>; Manning, Bryan <manning.bryan@epa.gov>; Yen, David <Yen.David@epa.gov>; Maeroff, Bruce <Maeroff.Bruce@epa.gov>; Orlin, David <Orlin.David@epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Mike,

Ex. 5 Attorney Client (AC)

Regards, Cullen Leggett +1 734-214-4514

From: Thrift, Mike

Sent: Monday, April 15, 2019 15:59 PM

To: Leggett, Cullen < Leggett.Cullen@epa.gov>; Samulski, Michael < samulski.michael@epa.gov>; Manning, Bryan < manning.bryan@epa.gov>; Yen, David < Yen.David@epa.gov>; Maeroff, Bruce < Maeroff.Bruce@epa.gov>; Orlin, David < Orlin.David@epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ex. 5 Attorney Client (AC)

From: Leggett, Cullen

Sent: Monday, April 15, 2019 11:41 AM

To: Thrift, Mike <thrift, Mike <<a href="mai

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Mike,

Ex. 5 Attorney Client (AC)

Ex. 5 Attorney Client (AC)

Regards, Cullen Leggett +1 734-214-4514

From: Thrift, Mike

Sent: Friday, April 12, 2019 16:40 PM

To: Leggett, Cullen < Leggett.Cullen@epa.gov>; Samulski, Michael < samulski.michael@epa.gov>; Manning, Bryan < manning.bryan@epa.gov>; Yen, David < Yen.David@epa.gov>; Maeroff, Bruce < Maeroff.Bruce@epa.gov>; Orlin, David < Orlin.David@epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ex. 5 Attorney Client (AC)

From: Thrift, Mike

Sent: Friday, April 12, 2019 1:32 PM

To: Leggett, Cullen < Leggett.Cullen@epa.gov >; Samulski, Michael < samulski.michael@epa.gov >; Manning, Bryan < manning.bryan@epa.gov >; Yen, David < Yen.David@epa.gov >; Maeroff, Bruce < Maeroff.Bruce@epa.gov >; Orlin, David < Orlin.David@epa.gov >

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ex. 5 Attorney Client (AC)

From: Leggett, Cullen

Sent: Friday, April 12, 2019 10:31 AM

To: Samulski, Michael <<u>samulski.michael@epa.gov</u>>; Thrift, Mike <<u>thrift.mike@epa.gov</u>>; Manning, Bryan manning.bryan@epa.gov>; Yen, David <Yen.David@epa.gov>; Maeroff, Bruce <Maeroff.Bruce@epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Mike,

Ex. 5 Deliberative Process (DP)

Regards, Cullen Leggett +1 734-214-4514

From: Samulski, Michael

Sent: Friday, April 12, 2019 13:25 PM

To: Leggett, Cullen < Leggett. Cullen@epa.gov>

Subject: FW: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

From: Charmley, William

Sent: Friday, April 05, 2019 3:03 PM

To: Hengst, Benjamin < Hengst. Benjamin@epa.gov>; Manning, Bryan < manning.bryan@epa.gov>; Samulski, Michael

<samulski.michael@epa.gov>; Grundler, Christopher <grundler.christopher@epa.gov>

Cc: Orlin, David <Orlin.David@epa.gov>; Thrift, Mike <thrift.mike@epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ben -

Thank you for following up with AA Wehrum on this topic.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks

Bill

From: Hengst, Benjamin

Sent: Thursday, April 04, 2019 11:14 AM

To: Manning, Bryan <manning.bryan@epa.gov>; Charmley, William <charmley.william@epa.gov>

Cc: Orlin, David < Orlin. David@epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ex. 5 Deliberative Process (DP)

From: Manning, Bryan

Sent: Thursday, April 4, 2019 10:39 AM

To: Charmley, William <<u>charmley.william@epa.gov</u>>; Hengst, Benjamin <<u>Hengst.Benjamin@epa.gov</u>>

Cc: Orlin, David < Orlin. David@epa.gov>

Subject: RE: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Hi Bill,

I did stop by the fuels meeting in C174, which just ended. You were correct that the agenda was packed, and the video hung up quickly after the fuels discussion ended.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks,

Bryan

Bryan Manning

U.S. EPA Office of Transportation and Air Quality Large Marine and Aviation Center 2000 Traverwood Drive Ann Arbor, MI 48105 (ph) 734-214-4832 (fax) 734-214-4816 manning.bryan@epa.gov

From: Charmley, William

Sent: Thursday, April 04, 2019 9:23 AM

To: Hengst, Benjamin < Hengst. Benjamin@epa.gov >; Manning, Bryan < manning.bryan@epa.gov >

Cc: Orlin, David < Orlin. David@epa.gov>

Subject: FW: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Ben -

I looked at the 9:30 am fuels meeting agenda for today with AA Wehrum. It looks very packed. I won't be on the call today.

If you think that there will be time to ask AA Wehrum and Clint if they would still like a briefing from OTAQ and OGC regarding the Administrator's question (can EPA set a CO2 requirement that FAA can implement equal to the ICAO CO2 standard without doing a standard setting rule under CAA 231), can you please let Bryan know.

Bryan – the fuels meeting will be in C174 from 9:30 - 10:30am. You should probably go there at about 10:15 in case there is time to ask for an update on the aircraft CO2 topic.

Thanks

Bill

From: Grundler, Christopher

Sent: Wednesday, April 03, 2019 2:53 PM

To: Hengst, Benjamin < Hengst. Benjamin@epa.gov >

Cc: Charmley, William <<u>charmley.william@epa.gov</u>>; Samulski, Michael <<u>samulski.michael@epa.gov</u>>; Thrift, Mike

<thrift.mike@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Manning, Bryan <manning.bryan@epa.gov>

Subject: Re: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Yes. My preference is to raise with Bill tomorrow at end of Fuels mtg

Christopher Grundler, Director

Office of Transportation and Air Quality

U.S. Environmental Protection Agency

202.564.1682 (Washington DC)

734.214.4207 (Ann Arbor MI)

734.645.5221 (mobile)

www.epa.gov/otaq

On Apr 3, 2019, at 2:40 PM, Hengst, Benjamin < Hengst.Benjamin@epa.gov> wrote:

Chris, Bill—with regard to the highlighted text:

We could try to raise this at the fuels weekly tomorrow, if you'd like, at the very end. Or I could try to confirm with Clint.

Any preference? Or other options?

From: Charmley, William

Sent: Wednesday, April 3, 2019 2:10 PM

To: Grundler, Christopher <grundler.christopher@epa.gov>

Cc: Hengst, Benjamin < Hengst. Benjamin@epa.gov >; Samulski, Michael < samulski.michael@epa.gov >;

Thrift, Mike <thrift, Mike <thrift

Subject: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Dear Chris and Ben,

Yesterday Boeing and FedEx met with AA Werhum, Principal Deputy AA Anne Idsal, and Deputy AA Clint Woods to discuss the CO2 standard setting rule topic. This meeting was at the industry request. For OTAQ, Brian Manning, Cullen Leggett, John Mueller and Courtney Herbolsheimer. For Boeing and FedEx, the participants were:

- Peter Pagano, Boeing
- John Moloney, Boeing
- Rush O'Keefe, FedEx
- Ralph Carter, FedEx
- Steven Taylor, FedEx

Bryan informed me that Boeing shared with AA Wehrum the same information that Boeing and General Electric shared with Deputy AA Gunasekara on December 7, 2018 (which I participated in).

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks Bill

From: Manning, Bryan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9507F60B9C47448A88DD5D270BFC2DD4-MANNING, BRYAN]

Sent: 4/4/2019 3:16:56 PM

Samulski, Michael [samulski.michael@epa.gov] To:

Subject: FW: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

Hi Mike, I hope you had a good spring break. See the below messages. Let's discuss when you return. Thanks. Bryan

From: Hengst, Benjamin

Sent: Thursday, April 04, 2019 11:14 AM

To: Manning, Bryan <manning.bryan@epa.gov>; Charmley, William <charmley.william@epa.gov>

Cc: Orlin, David < Orlin. David@epa.gov>

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Ex. 5 Deliberative Process (DP)

Thanks,

Bryan

Bryan Manning U.S. EPA Office of Transportation and Air Quality Large Marine and Aviation Center 2000 Traverwood Drive Ann Arbor, MI 48105 (ph) 734-214-4832 (fax) 734-214-4816 manning.bryan@epa.gov

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Sent: Wednesday, April 03, 2019 2:53 PM

To: Hengst, Benjamin < Hengst. Benjamin@epa.gov>

Cc: Charmley, William <<u>charmley.william@epa.gov</u>>; Samulski, Michael <<u>samulski.michael@epa.gov</u>>; Thrift, Mike

<thrift.mike@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Manning, Bryan <manning.bryan@epa.gov>

Subject: Re: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with AA Wehrum

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Christopher Grundler, Director

Office of Transportation and Air Quality

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734.645.5221 (mobile)

www.epa.gov/otaq

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Sent: Wednesday, April 3, 2019 2:10 PM

To: Grundler, Christopher <grundler.christopher@epa.gov>

Cc: Hengst, Benjamin < Hengst. Benjamin@epa.gov>; Samulski, Michael < samulski.michael@epa.gov>;

Thrift, Mike <<u>thrift.mike@epa.gov</u>>; Orlin, David <<u>Orlin.David@epa.gov</u>>; Manning, Bryan

<manning.bryan@epa.gov>

Subject: Report out on yesterday's Boeing/FedEx meeting with AA Wehrum - and next OTAQ steps with

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Ex. 5 Deliberative Process (DP)

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Ex. 5 Deliberative Process (DP)

Thanks Bill

Messag	ϵ
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From: Leggett, Cullen [Leggett.Cullen@epa.gov]

Sent: 8/13/2018 3:31:18 PM

To: Samulski, Michael [samulski.michael@epa.gov]; Maeroff, Bruce [Maeroff.Bruce@epa.gov]

Subject: RE: AA Wehrum (& OTAQ) meeting with Federal Express Senior VP & General Counsel Rush O'Keefe on Tuesday,

August 15

Interesting... Couple of thoughts... sorry for the mind dump

Ex. 5 Deliberative Process (DP)

Regards, Cullen Leggett +1 734-214-4514

From: Samulski, Michael

Sent: Monday, August 13, 2018 9:55 AM

To: Leggett, Cullen <Leggett.Cullen@epa.gov>; Maeroff, Bruce <Maeroff.Bruce@epa.gov>

Subject: FW: AA Wehrum (& OTAQ) meeting with Federal Express Senior VP & General Counsel Rush O'Keefe on

Tuesday, August 15

Some more info. Looks like the 767 is the issue they are raising

Michael Samulski
U.S. Environmental Protection Agency
Office of Transportation and Air Quality
Director, Large Marine and Aviation Center
1 (734) 214-4532
samulski.michael@epa.gov

From: Charmley, William

Sent: Monday, August 13, 2018 9:45 AM

To: Manning, Bryan <manning.bryan@epa.gov>; Samulski, Michael <samulski,michael@epa.gov>

Subject: Fwd: AA Wehrum (& OTAQ) meeting with Federal Express Senior VP & General Counsel Rush O'Keefe on

Tuesday, August 15

Sent from my iPhone

Begin forwarded message:

From: "Lewis, Josh" < Lewis. Josh@epa.gov > Date: August 13, 2018 at 9:15:20 AM EDT To: "Cook, Leila" < cook.leila@epa.gov >

Cc: "Hengst, Benjamin" < Hengst.Benjamin@epa.gov>, "Charmley, William"

<charmley.william@epa.gov>

Subject: RE: AA Wehrum (& OTAQ) meeting with Federal Express Senior VP & General Counsel Rush O'Keefe on Tuesday, August 15

Additional background from FedEx ahead of the meeting at 10 am tomorrow: (cut from an email Bill got from the FedEx CEO)

Ex. 4 CBI

The KC-46A is powered by Pratt & Whitney 4062 engines which can also be used on the 767F as the PW 4000 series engines powered many passenger 767's.

Ex. 4 CBI

From: Lewis, Josh

Sent: Friday, August 10, 2018 5:55 PM **To:** Cook, Leila < cook, leila@epa.gov>

Cc: Hengst, Benjamin < Hengst. Benjamin@epa.gov >; Charmley, William < charmley.william@epa.gov > Subject: Re: AA Wehrum (& OTAQ) meeting with Federal Express Senior VP & General Counsel Rush

O'Keefe on Tuesday, August 15

It's aircraft co2. Boeing (Pete Pagano) will also be there. Fed ex has one plane in particular they want to discuss with bill/Otaq. I likely have some more info in email that I'll dig out.

There's also a tote meeting that popped up...which you've probably already seen

On Aug 10, 2018, at 5:29 PM, Cook, Leila <cook.leila@epa.gov> wrote:

Hi Josh,

Today OTAQ received an invite referenced below for Bill W.' meeting with FEDEX on 8/15. There is no information in the appt and at the moment we are not thinking we know what the subject might be. In Bill's public calendar we located another FedEx meeting from 7/25th. We don't know whether they have any relationship. Anything you can pass along would be greatly appreciated.

Lee

From: Charmley, William

Sent: Friday, August 10, 2018 5:24 PM

To: Grundler, Christopher <grundler.christopher@epa.gov>

Cc: Samulski, Michael <samulski.michael@epa.gov>; Manning, Bryan

<manning.bryan@epa.gov>; Cook, Leila <cook.leila@epa.gov>; Hengst, Benjamin
<Hengst.Benjamin@epa.gov>; Simon, Karl <Simon.Karl@epa.gov>; Bynum, Cheryl

bynum.cheryl@epa.gov>

Subject: RE: AA Wehrum (& OTAQ) meeting with Federal Express Senior VP & General Counsel Rush O'Keefe on Tuesday, August 15

Chris -

I just saw on AA Wehrum's public calendar the following entry –

Can you, Ben or Lee look at AA Wehrum's internal calendar – maybe the meeting next week on the 15th is related to the meeting AA Wehrum had on July 25 with FedEx.

Thanks

Bill

Wednesday, July 25, 2018			
9:00AM	Meeting with FedEx Corporation	EPA Headquarters	
9:45AM	Staff Briefings	EPA Headquarters	
1:00PM	Meeting with Chemours	EPA Headquarters	
2:00PM	Staff Briefings	EPA Headquarters	

From: Charmley, William

Sent: Friday, August 10, 2018 5:14 PM

To: Grundler, Christopher <grundler.christopher@epa.gov>

Cc: Michael Samulski (samulski.michael@epa.gov) <samulski.michael@epa.gov>;
Manning, Bryan <manning.bryan@epa.gov>; Cook, Leila <cook.leila@epa.gov>; Hengst,

Benjamin < Hengst. Benjamin@epa.gov >; Simon, Karl (Simon. Karl@epa.gov)

<Simon.Karl@epa.gov>; Bynum, Cheryl <bynum.cheryl@epa.gov>

Subject: AA Wehrum (& OTAQ) meeting with Federal Express Senior VP & General

Counsel Rush O'Keefe on Tuesday, August 15

Dear Chris -

This afternoon you, Ben, Lee and I received an invitation from AA Wehrum for a meeting that AA Wehrum has on Tuesday with Ruch O'Keefe, a Senior VP and General Counsel for FedEx Express.

I don't know what this meeting is about, but I think that perhaps we heard AA Wehrum mention this person's name in the past month or two regarding aircraft – but I just can't remember. I have included Bryan and Mike in case they know anything about Mr. O'Keefe in the context of aircraft and/or ICAO. I have also included Karl and Cheryl – as I know that FedEx is a SmartWay member, so maybe they know Mr. O'Keefe.

In the heavy-duty Phase 1 and Phase 2 rulemaking, the group organized by Pat Quinn, the "Heavy-duty Leadership Group" included Fed Ex, and for that group FedEx was primarily represented by Mitch Jackson, who is a VP for Environmental Affairs and the Chief Sustainability Officer for FedEx Corporation.

That's what I know on this.

Thanks Bill

From: Samulski, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7ECF1AF23A134D2995FD354D03632D6C-SAMULSKI, MICHAEL]

Sent: 8/20/2018 7:46:35 PM
To: charmley.william@epa.gov

CC: Manning, Bryan [manning.bryan@epa.gov]

Subject: Updated Aircraft Briefing for Bill W

Attachments: Briefing for Bill Wehrum on Aircraft CO2 NPRM_8-20-18 - mjs.pptx

Bill,

Here is an updated briefing that includes the comments we received from Chris when we briefed him. We added three slides:

- 1) NOx inventory (slide 11)
- 2) NOx future work (slide 12)
- 3) Exemptions (slide 13)

Also, we still have a placeholder to update slide 10 based on your discussion with Pete Pagano.

Please let me know if you have any comments. I will drop off a paper copy as well.

Mike

Michael Samulski
U.S. Environmental Protection Agency
Office of Transportation and Air Quality
Director, Large Marine and Aviation Center
1 (734) 214-4532

samulski.michael@epa.gov
